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ABSTRACT

This publication contains brief articles concerned with modular school structures. Many articles offer examples of such structures at actual schools. The articles in this issue are: (1) "Hightstown High School"; (2) "St. Pius X Parish, Vancouver BC"; (3) "Forrest Street Elementary School"; (4) "Kingman Academy of Learning"; (5) "Women Christian Alliance Charter School"; (6) "Queens Elementary School"; (7) "Eleven Modular Units For University of Arizona Campus"; (8) "Graham Elem. School Constructed in One Week" (Wm. Scotsman); (9) "Mid Pacific Institute, Manoa Valley, HI"; (10) "New Jr. High School for Chandler, AZ"; (11) "Four New Classrooms for Michigan School"; (12) "Modular Classrooms--Perfect for Small and Picturesque District" (Steve Yantzer); (13) "Lawrence Township Schools, Indianapolis, IN"; (14) "School's Out! Building's Up!" (Laurie Robert); (15) "Fulton County Schools"; and (16) "Mayfield High School, Mayfield Heights, OH." (EV)

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Modular Building Institute
1999 Educational Showcase

Hightstown High School

St. Pius X Parish, Vancouver BC

Forrest Street Elementary School

Kingman Academy of Learning

Women Christian Alliance Charter School

Queens Elementary School

Eleven Modular Units For University of Arizona Campus

Graham Elem. School constructed in One Week

Mid Pacific Institute, Manoa Valley, HI

New Jr. High School for Chandler, AZ.

Four New Classrooms for Michigan School

Modular Classrooms - Perfect for Small and Picturesque District

Lawrence Township Schools, Indianapolis, Inc

School's Out! Building's Up!

Fulton County Schools

Mayfield High School, Mayfield Heights, OH

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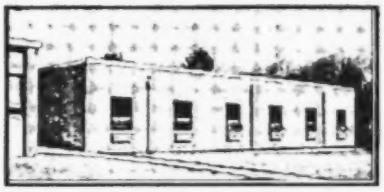
"Hightstown High School, Hightstown, NJ"
Bennett's Trailer Company



School officials at Hightstown High had one major requirement of the new factory-built addition to their school--the brick exterior of the addition had to match that of the original site-built building. Bennett's Trailer Company of Aston, Pennsylvania not only provided the Hightstown High addition, they also matched the brick perfectly.

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MBI Net > magazine > britco

"St. Pius X Parish, Vancouver, BC, Canada"
Britco Structures

Officials at St. Pius X Parish in Vancouver, British Columbia wanted to build an affordable, permanent elementary school. Furthermore, they wanted the school built within four months. Britco Structures of Surrey, British Columbia completed the 10,000 square foot factory-built school for St. Pius X Parish in 126 days. A school spokesman commented on the modular school saying that construction "exceeded our expectations."

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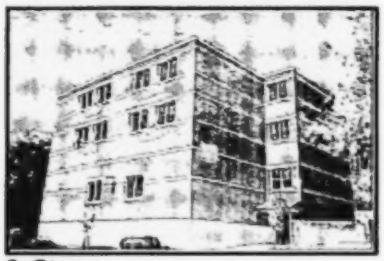
MBI Net > magazine > c1kullman

"It's True. A Four-Story Addition for An Inner City School Took Only 147 Days."
Kullman Industries



2-Story Cafetorium/Classroom addition at Forest Elementary School

Forrest Street Elementary School, an inner-city school, needed new classrooms, small-group instructional rooms, restrooms, mechanical rooms, and a two-story cafetorium fast. Kullman Industries, of Avenel, New Jersey, came through, completing Forrest Street's four-story, 22,000 square foot factory-built addition in just 147 days. The new school addition also included a four-stop elevator, allowing the existing building to meet ADA requirements.

School officials remain impressed with the factory-built construction methods used on the Forrest Street facility. They were also impressed that the addition was completed while school was in session. Furthermore, the project occurred during the dead of winter. Factory-built construction allowed the modular classrooms to be brought to the school site 90 percent complete. The units even included a four inch brick exterior.

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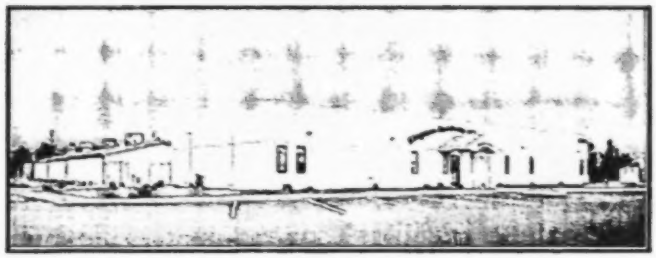
MBI Net > magazine > c1modtech

"Kingman Academy of Learning: An Example of Factory-Built Excellence"
Modular Technology



With very tight budget restraints, Kingman Academy of Learning needed an entire education campus. Modular Technology, of Phoenix, Arizona, demonstrated the flexibility that is available when using factory-built construction.

Comprised of 18 modular units, Kingman Academy's new campus includes administrative offices, classrooms, multi-purpose rooms, and a gymnasium. With an eye toward the future, focus was placed mainly on the permanent administrative facilities. These factory-built units were brought to the site floorless and then laid on a slab-on-grade concrete foundation.

In order to maximize available funds, the remainder of Kingman Academy's campus is comprised of temporary buildings, placed in a user-friendly layout. Hence, as the student population grows, these buildings can be expanded, relocated, or adapted to become permanent structures.

The key to cost-effectiveness with this project is, without doubt, the flexibility of modular construction. Combining both permanent and temporary facilities allowed this charter school to purchase an entire campus, including site improvement costs, for only $60.00 per square foot. An equivalent, site-built structure would have cost approximately $80.00 per square foot and would not have allowed for the flexibility needed in light of Kingman Academy's future growth.

Companies like Modular Technology continue to make factory-built construction the perfect way to accommodate economic concerns facing many schools today.

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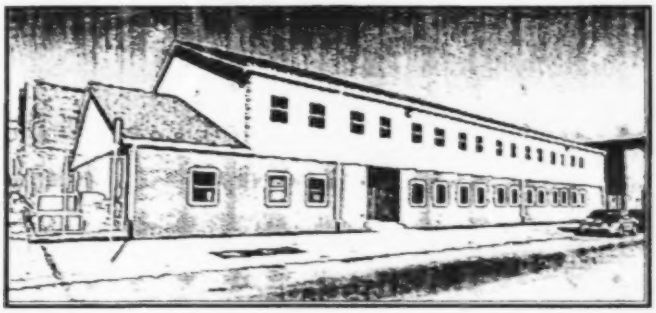
"Here Comes the Neighborhood:
Factory-Built Construction Helps a Community Grow"
Williams Scotsman



When the Women's Christian Alliance, an 80-year-old child welfare family service agency, was ready to begin building its charter school in North Central Philadelphia, they decided to use factory-built construction, hiring Williams Scotsman, headquartered in Baltimore, Maryland, to do the work.

As part of a neighborhood revitalization project, the Alliance acquired land from the City of Philadelphia at an affordable cost.

Funding for the charter school's educational program was provided by the Philadelphia Department of Education, while construction dollars were obtained through other public and private sources.

Soon after the land was purchased, Williams Scotsman received the word to begin construction.

Today, the Women's Christian Alliance is enjoying a new factory-built charter school. The building measures 60 feet by 132 feet, giving the Alliance more than 16,000 square feet of educational space. The charter school is a two-story permanently installed modular structure. It features a stucco and brick exterior.

From start to finish, the building was completed in less than five months. Approximately three weeks of that time were spent working on the building's foundation. Another 16 weeks were spent setting the factory-built units in place.

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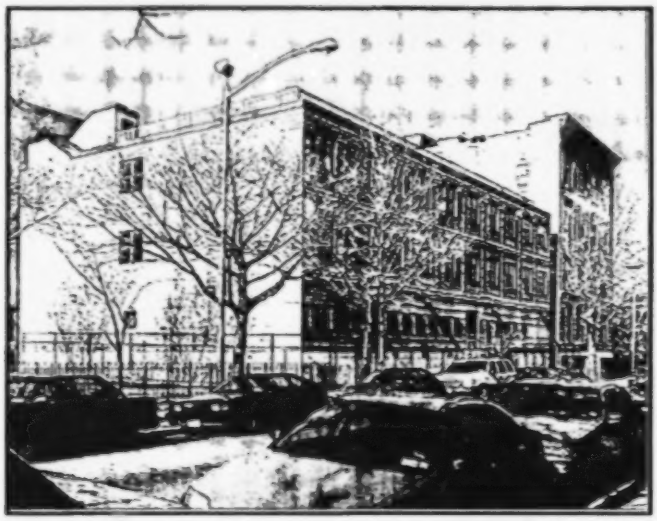
"Queens Elementary School, Queens, NY"
Kullman Industries



It took only eight months for Kullman Industries to construct a three-story, 25,154 square foot factory-built addition for Queens Elementary School located in Queens, New York. The addition to the elementary school was the first three-story modular structure built in New York City. Kullman Industries is headquartered in Avenel, New Jersey.

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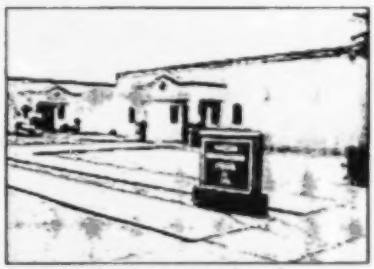
"University of Arizona, Tucson, AZ"
Modular Technology



A complete new school campus, including administration, classrooms, multi-purpose rooms, and gymnasium.

The University of Arizona is excited about their new factory-built college campus, especially since it was completed in less than three months. Modular Technology, of Phoenix, Arizona, provided the school with 11 modular units. The buildings, a total of 11,619 square feet, have a life span of more than 100 years. Identical to that of other University of Arizona buildings, the units include brick parapets and canopied entries.

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"Graham Elementary School, Rosewood, OH"
Williams Scotsman

During Graham Elementary School's winter vacation, fire, caused by a faulty extension cord, destroyed a 9,000 square foot wing of the school, as seen the photograph above. Officials recruited Williams Scotsman of Cincinnati, Ohio to resolve the immediate need for classroom space. Williams Scotsman provided Graham Elementary with five factory-built units, each measuring 64 feet by 24 feet. The new addition was in place within one week, just in time for the students' return from their vacation.

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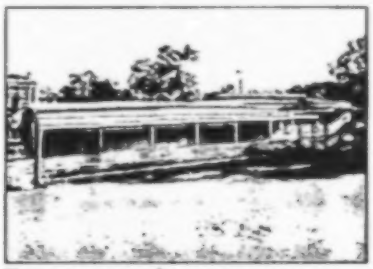
"Mid Pacific Institute, Manoa Valley, HI"
GE Capital Modular Space Hawaii



Temporary classroom.

Two factory-built units, each measuring 36 feet by 60 feet, make up Mid Pacific Institute's three new classrooms and two new restrooms. GE Capital Modular Space Hawaii, located in Kapolei, Hawaii, completed the modular classrooms in 51 days. The blue-gray color of the T-1-11 siding complements other nearby buildings, making the units appear as though they are original campus construction.

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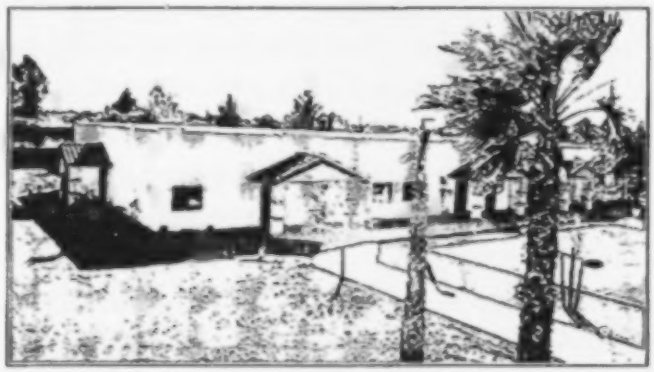
"Junior High School, Chandler, AZ"
Lafferty Modular Corporation



Seventy-five days is all it took for Lafferty Modular Corporation of Phoenix, Arizona to complete construction on this junior high school's new factory-built classrooms and administrative offices. Ten modular units make up the large 9,240 square foot facility, while the new school's exterior matches original campus buildings perfectly.

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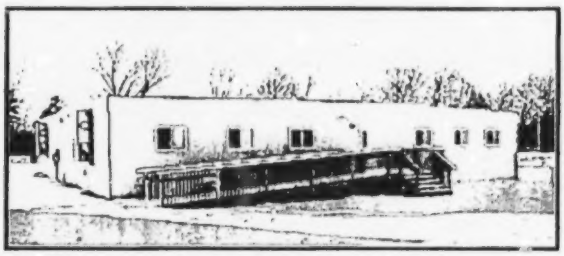
"Michigan-Coded Classrooms, Taylor, MI"
McDonald Mobile Offices



As a result of overcrowding, this Taylor, Michigan school needed four classrooms able to support over 150 students. McDonald Mobile Offices in Southfield, Michigan completed the project for the school in just 55 days. Made up of five factory-built units, each measuring 14 feet by 76 feet, the classrooms provide an extra 5,320 square feet of space. The wood siding, shingled roof, and decorative mansard accentuate the facility.

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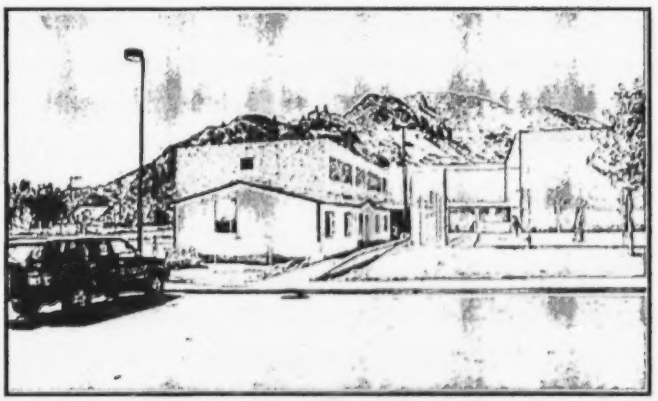
MBI Net > magazine > mckinney

"Factory-Built Classrooms: A Perfect Fit for Small and Picturesque Entiat School District"
by Steve Yantzer, Mckinney Mobile Modular



Entiat School District is located on the banks of the Columbia River in north central Washington. It is a special school district, small and picturesque, requiring some unique factory-built classrooms.

When representatives from Mckinney Mobile Modular, headquartered in Auburn, Washington, met with the school superintendent, several concerns about the district and the community were outlined. The community is a small, pretty place, and any school construction had to meet residents' approval.

The elements can be very harsh in Entiat, including desert summer heat and heavy winter snow. The factory-built buildings would also need to accommodate initial classroom use during the first two years, but then would be modified into the school district's administrative offices during the third year.

A design that was based on a standard modular classroom measuring 28 feet by 64 feet was submitted to the superintendent as a starting point. To upgrade the appearance, Mckinney added 12 inch overhangs, stucco siding, and a green blend architectural roof with a dormer over the entrances. The building was also set on a concrete stem wall foundation for easy access and a permanent appearance. With flexibility built right in, the modular classrooms could be moved, if such action was ever needed.

The beat the elements, the walls were constructed in four layers including interior acoustical tackboard and 5/8 inch Type X Gyplap over 2 inch by 6 inch studs both inside and out. The roof was upgraded to guard against deep, heavy snows. Since, the building was placed next to a playground, the classrooms walls were modified to reduce noise, offering a quite educational atmosphere.

Keeping in mind that the classrooms would one day be used as administrative offices, electrical and communications outlets were built into the base design. This will allow the

district to modify the building interior later with office and conference areas, but with only minimum modification efforts.

No matter how small the school or its community, factory-built classrooms are always a quality solution to instant space.

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MBI Net > magazine > newcastle

"Lawrence Township Schools, Indianapolis, IN"
New Castle Modular Specialties

It took only four days for New Castle Modular Specialties of New Castle, Indiana to deliver and install two 1,000 square foot factory-built classrooms for Lawrence Township Schools. New subdivisions were built near the schools, which meant more classroom space would be needed for an increased number of students. Factory-built classrooms are an inexpensive, short-term solution to school overcrowding.

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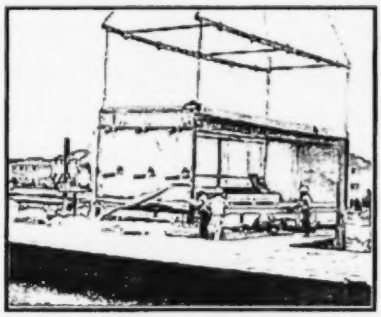
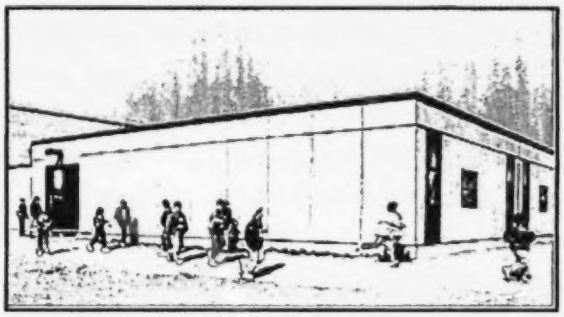
MBI Net > magazine > nrb

"School's Out! Building's Up! For the Educated Buyer, It's Just About that Simple"
by Laurie Robert, NRB, Inc.





Thinking of factory-built construction strictly in terms of "portable" buildings reflects a perception that is still quite relevant today. Certainly, portable classrooms form a part of the roots of the commercial factory-built industry, and the basic portable classroom unit has remained a viable solution to short-term enrollment challenges, but what many may not realize is just how far factory-built technology has advanced in recently years.

In 1979, having a single portable classroom at a North American school was considered an extreme emergency measure, brought about by the need to manage sudden and unforeseen fluctuations in student enrollment. However, in 1999, having a single portable classroom for the same unforeseen fluctuations is viewed as a permanent transitory measure. What was once considered an extreme measure is now a fact of life. Quite simply, there is no better way to instantly provide cost-effective space to handle demographic shifts than to use modular construction.

Perhaps the most significant advancement in the factory-built industry is the development of school additions. Modular schools, like those from NRB, Inc. in Grimsby, Ontario, Canada, are shipped 80 to 95 percent complete. Cladding is installed at the plant. Removable lifting lugs are provided to allow the sections to be quickly placed with a crane. The structural steel design ensures that racking is minimized so that drywall and ceilings may be preinstalled and shipped without damage.

Factory-built buildings offer the permanence and performance levels of conventional construction in a fraction of the time. Using modular construction methods is not only faster, but it is safer. Construction on the site takes place after the school premises vacated. And whether or not the addition is installed permanently, flexibility is built in. When enrollments shift, so can the addition, a sound solution for many schools facing overcrowding.

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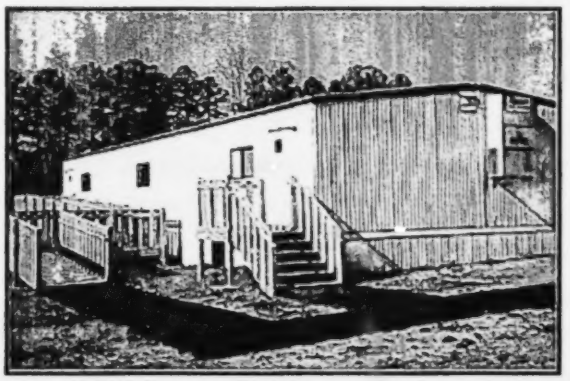
"Fulton County Schools, Fulton County, GA"
Resun Leasing



Fulton County Schools needed additional classroom space to handle the great influx of elementary and secondary students in one of the most populated counties of Georgia. Resun Leasing, headquartered in Dulles, Virginia, completed installation of the 146 factory-built units in just 100 days. As cost was a concern to Fulton County, Resun found that aluminum siding and vinyl skirting were optimum materials to use on the classrooms.

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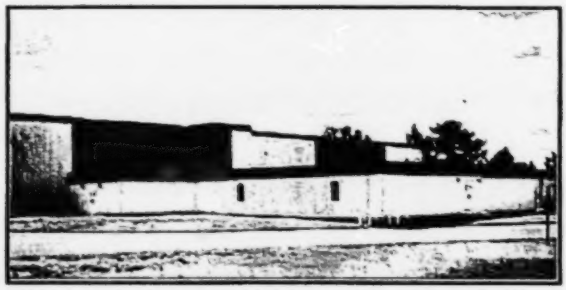
"Mayfield High School, Mayfield Heights, OH"
Sommer's Mobile Leasing



The Mayfield Heights School Systems was so pleased with their first experience with factory-built construction that they decided to build a second modular building in their district. Sommer's Mobile Leasing of Elyria, Ohio completed the 4,290 square foot Mayfield High School in just 68 days, a fraction of the amount of time it would have taken to build the school using traditional construction methods.

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